

**ABSTRACT**

A method of providing improved accuracy of the calculation of the long-term average arrival rate (AAR) of an ATM packet stream is disclosed. Using this method, accurate synchronization of a receiver clock to a network clock is achieved.

The invention measures the variable time interval,  $T$ , required to complete the arrival of a known and fixed number of data packets,  $C$ . Using a predetermined and relatively large number of data packets, a time interval measurement is accurately measured to very precise values. Because the time interval measurement is triggered precisely by the arrival of the first data packet to the complete arrival of the last data packet in the session, there is no quantization error with respect to the first and last data packet. AAR is then calculated as  $(C \cdot S)/T$ , where  $S$  is the number of samples per data packet.